CYP3A4

MDZ (Midazolam)

1-OH-MDZ (1-Hydroxymidazolam)

Fig. 1

Inventor: Brian Leyland-Jones

NAT2

1X (1-methylxanthine)

AAMU (5-acetamino-6-amino-methyluracil)

AFMU (5-acetamino-6-formylamino-methyluracil)

Inventor: Brian Leyland-Jones

CYP1A2

Caffeine (1,3,7-trimethylxanthine)

1,7-DMX (1,7-dimethylxanthine)

1,7-DMU (1,7-dimethyluracil)

Inventor: Brian Leyland-Jones

NAT1

p-ASA (p-aminosalicylic acid)

Acetyl-pASA (acetyl-p-aminosalicylic acid)

CYP2A6

Coumarin

7-Hydroxycoumarin

CYP2C19

R-(-)-Mephenytoin

S-(+)-Mephenytoin

Fig.

Inventor: Brian Leyland-Jones

CYP2C9

(s)-Ibuprofen

2-carboxyibuprofen

CYP2D6

Dextromethorphan

Dextrorphan

Fig. 8

CYP2E1

Clorzoxazone

6-Hydroxychlorzoazone

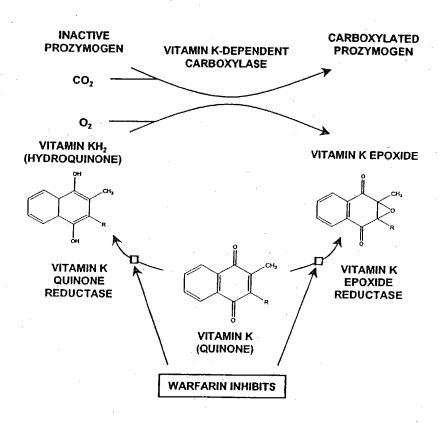
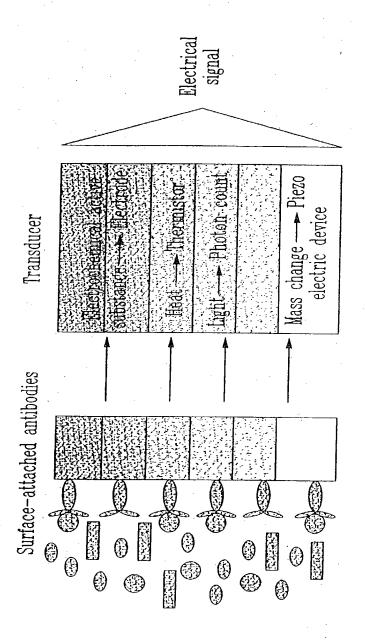
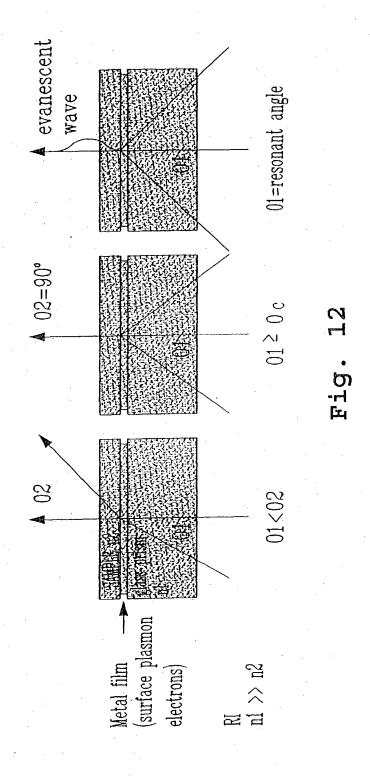
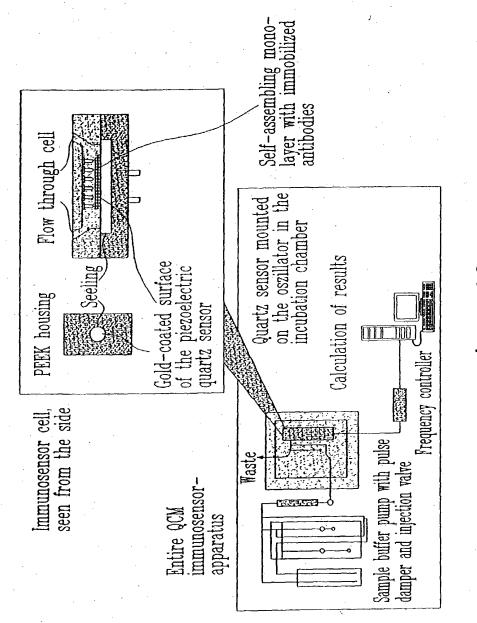


Fig. 10





Inventor: Brian Leyland-Jones



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Inventor: Brian Leyland-Jones

AAMU-hemisuccinic acid

1 methyl xanthine-8-propionic acid

Fig. 14

Inventor: Brian Leyland-Jones

Derivatives of AAMU (5-acetamino-6-amino-3-methyluracil) or AFMU (5-acetamino-6-formylamino-3-methyluracil)

X

$$(CH_2)$$
 $n-COOH$

where n = 2,3 or 4

$$(CH_2) n - C - NH - NH_2$$
 O
 $(CH_2) n - C - NH - (CH_2) n - NH_2$

$$cH_2-x'$$

where X' is I, Br, or Cl

$$CH_2-S-(CH_2)n-NH_2$$

$$\mathrm{CH_2}\mathrm{-s}\mathrm{-CH_2}\mathrm{-CH_2}\mathrm{-oH}$$

Inventor: Brian Leyland-Jones

Derivatives of AAMU (5-acetamino-6-amino-3-methyluracil) or AFMU (5-acetamino-6-formylamino-3-methyluracil)

X

$$(CH_2)$$
 $n-COOH$

where n = 2,3 or 4

$$(CH_2) n - C - NH - NH_2$$
 O
 $(CH_2) n - C - NH - (CH_2) n - NH_2$

$$cH_2-x$$

where X' is I, Br, or Cl

$$CH_2-S-(CH_2)n-NH_2$$

$$\text{CH}_2$$
- S - CH_2 - CH_2 - OH

Derivatives of 1X (methylxanthine)

$$(CH_2)$$
 n-COOH

where n = 2,3 or 4

$$(CH_2)n-C-NH-NH_2$$

$$(CH_2)n-C-NH-(CH_2)n-NH_2$$

$$(CH_2)n-C-NH-(CH_2)n-SH$$

Docket No.: 3287.1005-000

Title: INDIVIDUALIZATION OF THERAPY WITH ANTICOAGULANTS

Inventor: Brian Leyland-Jones

Derivatives of 1X (methylxanthine)

$$\begin{array}{c|c}
O & M & M \\
\hline
O & M & M \\
\hline
O & M & M
\end{array}$$

X

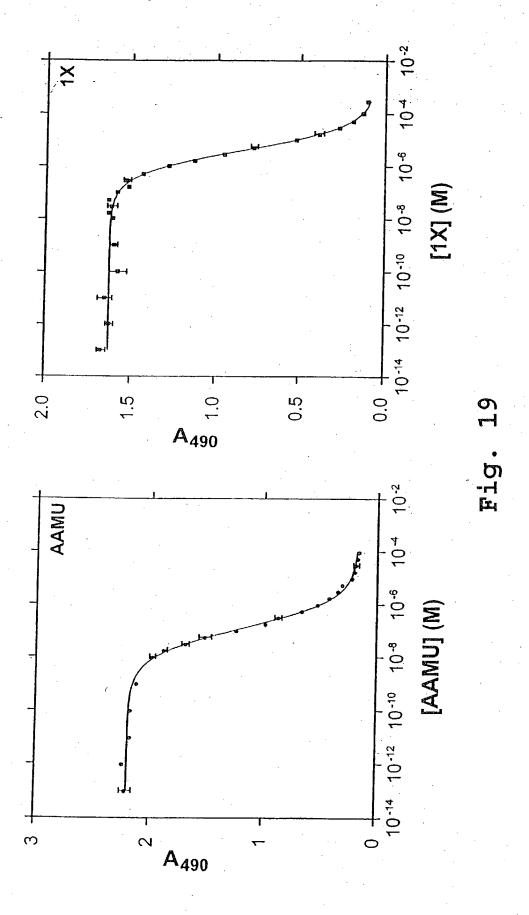
$$(CH_2)n-COOH$$

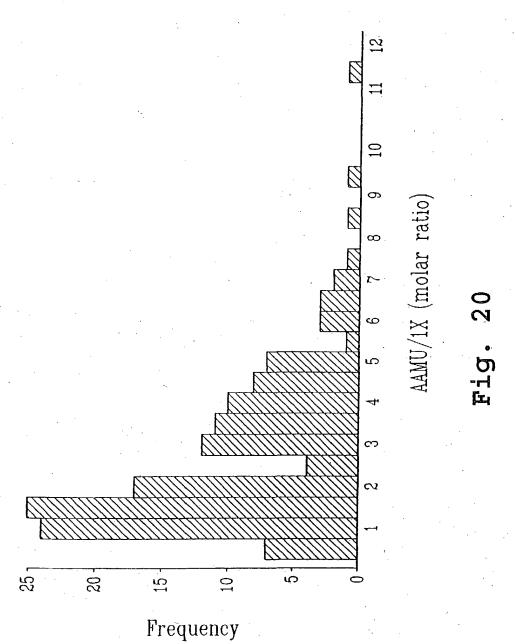
where n = 2,3 or 4

$$(CH_2)n-C-NH-NH_2$$

$$(CH_2)n-C-NH-(CH_2)n-NH_2$$

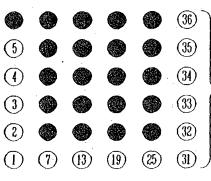
$$(CH_2)n-C-NH-(CH_2)n-SH$$





Inventor: Brian Leyland-Jones

6X6 ARRAY



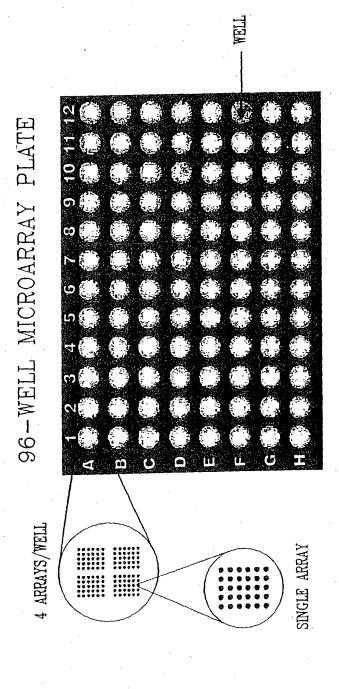
ARRAY LAYOUT:

ALIGNMENT MARKERS-
BUFFER BLANKS-
ANTIGENS-

ANTIGEN KEY:

•	
1.	BIOTINYLATED BSA MARKER
2-6.	BUFFER BLANKS
7.	NAT2: AAMU
8.	BIOTINYLATED BSA MARKER
9	NATZ: 1X
10.	NAT1: pASA
11.	NAT1: ACETYL-pASA
12.	CYP1A2: CAFFEINĒ
13.	BIOTINYLATED BSA MARKER
14.	CYP1A2: 1,7-DMX
15.	CYP1A2: 1.7-DMU
16.	CYP2A6: COMARIN
17	CYP2A6: 7-HYDROXYCOUMARIN
18	CYP2C19: R- (-) -MEPHENYTOIN
19.	BIOTINYLATED BSÁ MARKER
20.	BIOTINYLATED BSA MARKER CYP2C19: S- (+) -MEPHENYTOIN
21.	CYP2C9: DICLOFENAC
22.	CYP2C9: 4-HYDROXYDICLOFENAC
23.	CYP2C9: 4-HYDROXYDICLOFENAC CYP2D6: DEXTROMETHORPHAN
24.	CYP2D6: DEXTRORPHAN
25.	BIOTINYLATED BSA MARKER
26.	CYP2E1: CHLORZOXAZONE
27.	CYP2E1: 6-HYDROXYCHLORZOXAZONE
28.	CYP3A4: MIDAZOLAM
29.	CYP3A4: 1-HYDROXYMIDAZOLAM
30.	BUFFER BLANK
	BIOTINYLATED BSA MARKER
ŀ	

Fig. 21



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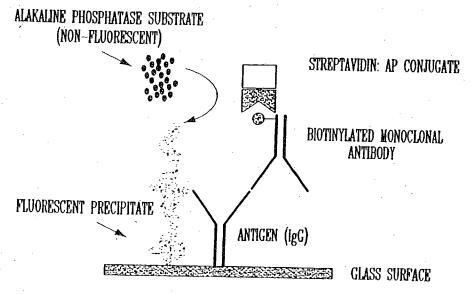


Fig. 23

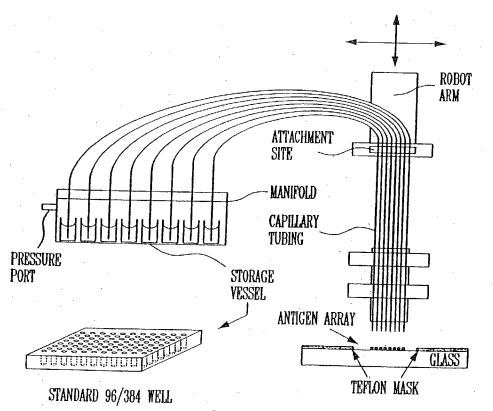
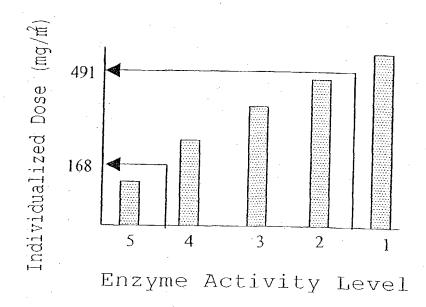


Fig. 24

OH
OH
OH
OH
ON
ON
NO2
$$3 \text{ steps}$$
R
ON
NHCO(CH₂)nCO₂H
(I) R= H, or OH
(V) n=1 or 8



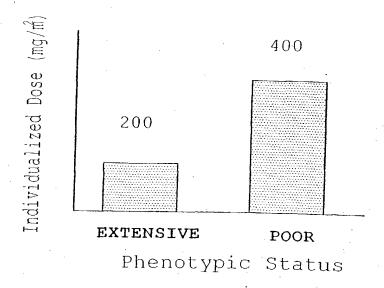
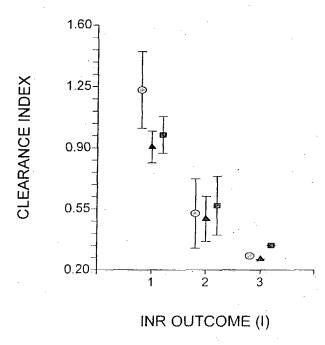


Fig. 26



Variables

CLM_RW_3 CLM_RW_14

CLM_RW_24

Fig.